Vernon A Squire

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5062537/publications.pdf

Version: 2024-02-01

111 papers	4,539 citations	101543 36 h-index	110387 64 g-index
112 all docs	112 docs citations	112 times ranked	1583 citing authors

#	Article	IF	Citations
1	Of ocean waves and sea-ice revisited. Cold Regions Science and Technology, 2007, 49, 110-133.	3.5	387
2	Of Ocean Waves and Sea Ice. Annual Review of Fluid Mechanics, 1995, 27, 115-168.	25.0	350
3	The attenuation rates of ocean waves in the marginal ice zone. Journal of Geophysical Research, 1988, 93, 6799-6818.	3.3	230
4	Antarctic ice shelf disintegration triggered by sea ice loss and ocean swell. Nature, 2018, 558, 383-389.	27.8	200
5	Reflection and transmission characteristics at the edge of shore fast sea ice. Journal of Geophysical Research, 1990, 95, 11629-11639.	3.3	169
6	The response of ice floes to ocean waves. Journal of Geophysical Research, 1994, 99, 891.	3.3	158
7	Ocean Wave Interactions with Sea Ice: A Reappraisal. Annual Review of Fluid Mechanics, 2020, 52, 37-60.	25.0	154
8	Waveâ€“ice interactions in the marginal ice zone. Part 1: Theoretical foundations. Ocean Modelling, 2013, 71, 81-91.	2.4	146
9	Direct measurement of the attenuation of ocean waves by pack ice. Nature, 1980, 283, 365-368.	27.8	122
10	Moving Loads on Ice Plates. Solid Mechanics and Its Applications, 1996, , .	0.2	116
11	Response of a circular ice floe to ocean waves. Journal of Geophysical Research, 1996, 101, 8869-8884.	3.3	113
12	The Effect of the Marginal Ice Zone on the Directional Wave Spectrum of the Ocean. Journal of Physical Oceanography, 1986, 16, 358-376.	1.7	108
13	Waveâ€“ice interactions in the marginal ice zone. Part 2: Numerical implementation and sensitivity studies along 1D transects of the ocean surface. Ocean Modelling, 2013, 71, 92-101.	2.4	103
14	Overview of the Arctic Sea State and Boundary Layer Physics Program. Journal of Geophysical Research: Oceans, 2018, 123, 8674-8687.	2.6	96
15	Comparison of viscoelasticâ€type models for ocean wave attenuation in iceâ€covered seas. Journal of Geophysical Research: Oceans, 2015, 120, 6072-6090.	2.6	82
16	Attenuation and directional spreading of ocean wave spectra in the marginal ice zone. Journal of Fluid Mechanics, 2016, 790, 492-522.	3.4	80
17	Past, present and impendent hydroelastic challenges in the polar and subpolar seas. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2813-2831.	3.4	78
18	Emerging trends in the sea state of the Beaufort and Chukchi seas. Ocean Modelling, 2016, 105, 1-12.	2.4	78

#	Article	IF	Citations
19	On the calculation of an attenuation coefficient for transects of ice-covered ocean. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 136-162.	2.1	68
20	The Flexural Response of a Tabular Ice Island to Ocean Swell. Annals of Glaciology, 1980, 1, 23-27.	1.4	61
21	Vehicles and aircraft on floating ice. Nature, 1988, 333, 159-161.	27.8	58
22	Break-up of sea ice by ocean waves. Annals of Glaciology, 1998, 27, 438-442.	1.4	58
23	Toward realism in modeling ocean wave behavior in marginal ice zones. Journal of Geophysical Research, 1997, 102, 22981-22991.	3.3	56
24	Wave scattering by multiple rows of circular ice floes. Journal of Fluid Mechanics, 2009, 639, 213-238.	3.4	51
25	Hydroelastic response of floating elastic discs to regular waves. Part 1. Wave basin experiments. Journal of Fluid Mechanics, 2013, 723, 604-628.	3.4	51
26	Strain in shore fast ice due to incoming ocean waves and swell. Journal of Geophysical Research, 1991, 96, 4531-4547.	3.3	50
27	A threeâ€dimensional model of wave attenuation in the marginal ice zone. Journal of Geophysical Research, 2010, 115, .	3.3	50
28	Hydroelastic response of floating elastic discs to regular waves. Part 2. Modal analysis. Journal of Fluid Mechanics, 2013, 723, 629-652.	3.4	49
29	A fresh look at how ocean waves and sea ice interact. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170342.	3.4	49
30	Coupling between the ocean and an ice shelf. Annals of Glaciology, 1991, 15, 101-108.	1.4	45
31	Scattering of flexuralâ€“gravity waves at the boundaries between three floating sheets with applications. Journal of Fluid Mechanics, 2006, 569, 113.	3.4	43
32	Ocean surface wave evolvement in the Arctic Basin. Geophysical Research Letters, 2009, 36, .	4.0	41
33	A theoretical, laboratory, and field study of iceâ€coupled waves. Journal of Geophysical Research, 1984, 89, 8069-8079.	3.3	40
34	Finiteâ€floe wave reflection and transmission coefficients from a semiâ€infinite model. Journal of Geophysical Research, 1993, 98, 12537-12542.	3.3	39
35	Tabular icebergs in ocean waves. Nature, 1982, 297, 669-671.	27.8	38
36	Attenuation and Directional Spreading of Ocean Waves During a Storm Event in the Autumn Beaufort Sea Marginal Ice Zone. Journal of Geophysical Research: Oceans, 2018, 123, 5912-5932.	2.6	38

#	Article	IF	Citations
37	Oblique scattering of plane flexuralâ€“gravity waves by heterogeneities in seaâ€“ice. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 3469-3497.	2.1	37
38	Coupling between the ocean and an ice shelf. Annals of Glaciology, 1991, 15, 101-108.	1.4	36
39	Evolution of Directional Wave Spectra in the Marginal Ice Zone: A New Model Tested with Legacy Data. Journal of Physical Oceanography, 2016, 46, 3121-3137.	1.7	33
40	Modelling wave-induced sea ice break-up in the marginal ice zone. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170258.	2.1	31
41	The breakup of shore fast sea ice. Cold Regions Science and Technology, 1993, 21, 211-218.	3.5	29
42	Ice-coupled wave propagation across an abrupt change in ice rigidity, density, or thickness. Journal of Geophysical Research, 1996, 101, 20825-20832.	3.3	29
43	Lifetime estimation for a land-fast ice sheet subjected to ocean swell. Annals of Glaciology, 2001, 33, 333-338.	1.4	29
44	The transient response of floating elastic plates to wavemaker forcing in two dimensions. Journal of Fluids and Structures, 2012, 28, 416-433.	3.4	28
45	Shuttle Imaging Radar B (SIRâ€B) Weddell Sea ice observations: A comparison of SIRâ€B and scanning multichannel microwave radiometer ice concentrations. Journal of Geophysical Research, 1987, 92, 7173-7179.	3.3	27
46	On the critical angle for ocean waves entering shore fast ice. Cold Regions Science and Technology, 1984, 10, 59-68.	3.5	26
47	How a region of cracked sea ice affects ice-coupled wave propagation. Annals of Glaciology, 2001, 33, 327-332.	1.4	25
48	Observations of flexural waves on the Erebus Ice Tongue, McMurdo Sound, Antarctica, and nearby sea ice. Journal of Glaciology, 1994, 40, 377-385.	2.2	22
49	A boundary-integral method for the interaction of large-amplitude ocean waves with a compliant floating raft such as a sea-ice floe. Journal of Engineering Mathematics, 2008, 62, 355-372.	1.2	22
50	The decay of flexural-gravity waves in long sea ice transects. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 2785-2812.	2.1	22
51	Dynamic strain response of lake and sea ice to moving loads. Cold Regions Science and Technology, 1985, 11, 123-139.	3.5	21
52	Weddellâ€Scotia Sea marginal ice zone observations from space, October 1984. Journal of Geophysical Research, 1986, 91, 3920-3924.	3.3	21
53	Wave propagation across sea-ice thickness changes. Ocean Modelling, 2008, 21, 1-11.	2.4	21
54	A comparison of the mass-loading and elastic plate models of an ice field. Cold Regions Science and Technology, 1993, 21, 219-229.	3.5	20

#	Article	IF	Citations
55	Evolution of Directional Wave Spectra Through Finite Regular and Randomly Perturbed Arrays of Scatterers. SIAM Journal on Applied Mathematics, 2015, 75, 630-651.	1.8	20
56	Observations of flexural waves on the Erebus Ice Tongue, McMurdo Sound, Antarctica, and nearby sea ice. Journal of Glaciology, 1994, 40, 377-385.	2.2	19
57	The effect of submergence on wave scattering across a transition between two floating flexible plates. Wave Motion, 2008, 45, 361-379.	2.0	19
58	MIZEX West: Bering Sea Marginal Ice Zone Experiment. Eos, 1983, 64, 578-579.	0.1	18
59	Perfect transmission and asymptotic solutions for reflection of ice-coupled waves by inhomogeneities. Wave Motion, 2007, 44, 371-384.	2.0	17
60	C-band SAR observations of marginal ice zone rheology in the Labrador Sea. IEEE Transactions on Geoscience and Remote Sensing, 1989, 27, 522-534.	6.3	15
61	An Investigation into the use of Strain Rosettes for the Measurement of Propagating Cyclic Strains. Journal of Glaciology, 1978, 20, 425-431.	2.2	14
62	On modelling an iceberg embedded in shore-fast sea ice. Journal of Engineering Mathematics, 2001, 40, 211-226.	1.2	14
63	Scattering of ice coupled waves by a sea-ice sheet with random thickness. Waves in Random and Complex Media, 2007, 17, 357-380.	2.7	14
64	Wave Scattering at the Seaâ€Ice/Iceâ€Shelf Transition with Other Applications. SIAM Journal on Applied Mathematics, 2007, 67, 938-959.	1.8	13
65	How waves break up inshore fast ice. Polar Record, 1984, 22, 281-285.	0.8	12
66	Geophysical and oceanographic information in the marginal ice zone from ocean wave measurements. Journal of Geophysical Research, 1995, 100, 997.	3.3	11
67	Wave Damping in Compact Pancake Ice Fields Due to Interactions Between Pancakes. Antarctic Research Series, 0, , 325-341.	0.2	11
68	Field experiments on wave-ice interaction in the Bering Sea and Greenland waters, 1979. Polar Record, 1980, 20, 147-153.	0.8	10
69	Scattering of ice-coupled waves by variable sea-ice terrain. Annals of Glaciology, 2006, 44, 88-94.	1.4	10
70	Energy transport velocity of flexural waves in a random medium. Waves in Random and Complex Media, 2000, 10, 83-102.	1.5	10
71	Numerical Modelling of Realistic Ice Floes in Ocean Waves. Annals of Glaciology, 1983, 4, 277-282.	1.4	9
72	Super-Critical Reflection of Ocean Waves; A New Factor in Ice-Edge Dynamics?. Annals of Glaciology, 1989, 12, 157-161.	1.4	9

#	Article	IF	Citations
73	Wave induced fracture probabilities for arctic sea-ice. Cold Regions Science and Technology, 2011, 67, 31-36.	3.5	9
74	Reflection and transmission of ocean wave spectra by a band of randomly distributed ice floes. Annals of Glaciology, 2015, 56, 315-322.	1.4	9
75	Technological limitations to satellite glaciology. International Journal of Remote Sensing, 1989, 10, 7-22.	2.9	8
76	Random vibration of floating ice tongues. Antarctic Science, 1989, 1, 157-163.	0.9	8
77	Energy transport in the marginal ice zone. Journal of Geophysical Research, 2001, 106, 19917-19927.	3.3	8
78	Crack formation and breakout of shore fast sea ice in Mordvinova Bay, south-east Sakhalin Island. Cold Regions Science and Technology, 2020, 175, 103082.	3.5	8
79	Moving loads on sea ice. Polar Record, 1987, 23, 569-575.	0.8	7
80	Workshop on wave-ice interaction. Eos, 1992, 73, 375-375.	0.1	7
81	On the estimation of ice thickness from scattering observations. Dynamics of Atmospheres and Oceans, 2010, 49, 215-233.	1.8	7
82	Modelling of sea-ice phenomena. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20180157.	3.4	7
83	A transport equation for flexural-gravity wave propagation under a sea ice cover of variable thickness. Wave Motion, 2019, 88, 153-166.	2.0	7
84	Modelling of Antarctic Tabular Icebergs in Ocean Waves. Annals of Glaciology, 1983, 4, 152-157.	1.4	6
85	Ocean wave scattering by natural sea ice transects. Journal of Geophysical Research, 2008, 113, .	3.3	6
86	An idealized waveâ€“ice interaction model without subgrid spatial or temporal discretizations. Annals of Glaciology, 2015, 56, 258-262.	1.4	6
87	Numerical Modelling of Realistic Ice Floes in Ocean Waves. Annals of Glaciology, 1983, 4, 277-282.	1.4	5
88	Linear wave forcing of an array of axisymmetric ice floes. IMA Journal of Applied Mathematics, 2010, 75, 108-138.	1.6	5
89	Ocean wave/sea ice interactions in the south-eastern coastal zone of Sakhalin Island. Estuarine, Coastal and Shelf Science, 2020, 238, 106725.	2.1	5
90	The role of incoming waves in ice-edge dynamics. Annals of Glaciology, 1991, 15, 96-100.	1.4	4

#	Article	IF	Citations
91	Consequences of dissipation on the group velocity in a flexible ice cover. Cold Regions Science and Technology, 1998, 27, 75-81.	3.5	4
92	Resonance and interactions of infragravity waves with sea ice. Cold Regions Science and Technology, 2021, 182, 103217.	3.5	4
93	The role of incoming waves in ice-edge dynamics. Annals of Glaciology, 1991, 15, 96-100.	1.4	3
94	Super-Critical Reflection of Ocean Waves; A New Factor in Ice-Edge Dynamics?. Annals of Glaciology, 1989, 12, 157-161.	1.4	3
95	Acoustic emission generated by moving loads on sea ice: Preliminary results. Cold Regions Science and Technology, 1990, 18, 337-342.	3.5	2
96	Marginal ice zone rigidity parameterization from ocean wave refraction. Cold Regions Science and Technology, 1994, 22, 235-241.	3.5	2
97	Water wave scattering from a mass loading ice floe of random length using generalised polynomial chaos. Wave Motion, 2017, 70, 222-239.	2.0	2
98	On the trapping of energy from storm surges on the coasts of the Sea of Okhotsk. Estuarine, Coastal and Shelf Science, 2021, 250, 107136.	2.1	2
99	A cornucopia of oscillations on the Laptev Sea shelf. Continental Shelf Research, 2021, 227, 104514.	1.8	1
100	An Investigation into the use of Strain Rosettes for the Measurement of Propagating Cyclic Strains. Journal of Glaciology, 1978, 20, 425-431.	2.2	1
101	Automatic Collection of Tilt and Strain Data from Tabular Icebergs. Annals of Glaciology, 1983, 4, 147-151.	1.4	1
102	Arctic Ocean Atlas - Atlas okeanov. Severnyy ledovityy okean [Atlas of the oceans. Arctic Ocean] edited by V. I. Faleyev and others. Moscow, Ministerstvo Oborony SSSR. Voyenno-Morskoy Flot, 1980, xii, 184, 5p. Hardcover. 25 roubles.. Polar Record, 1982, 21, 182-183.	0.8	0
103	Sea Ice in the Soviet Arctic - Dynamics of Ice Cover. L. A. Timokhov (editor). 1984. Rotterdam, Balkema. (Russian translations series 25.) 219 p, illustrated, hard cover. ISBN 90 6191 441 8. Â£17.65, US$26.00. Polar Record, 1985, 22, 546-546.	0.8	0
104	Icedive 84 - Arctic Underwater Operations; Medical and Operational Aspects of Diving Activities in Arctic Conditions. L. Rey (editor). 1985. London, Graham and Trotman. 355 p, illustrated, hard cover. ISBN 0 860 10 6314. Â£40.00.. Polar Record, 1985, 22, 548-548.	0.8	0
105	The Arctic Ocean: Special Number - Oceanus, 29(1), Spring1986. The Arctic Ocean.. Polar Record, 1986, 23, 364-365.	0.8	0
106	The Nordic Seas Burton G. Hurdle (ed.), Springer- Verlag, Berlin, 1986 777 pp., DM198. Geophysical Journal International, 1987, 89, 1025-1027.	2.4	0
107	Geophysics of Sea Ice - The geophysics of sea ice. N. Untersteiner (editor). 1986. New York, Plenum Press. (NATO ASI Series B, 146). 1196p, illustrated, hard cover. ISBN 0-306-42465-7. US$89.50.. Polar Record, 1987, 23, 729-730.	0.8	0
108	A portable CTD system for use in polar environments. Cold Regions Science and Technology, 1991, 20, 1-9.	3.5	0

#	Article	IF	Citations
109	The growth and decay of iceG.S.H. Lock Studies in Polar Research, Cambridge University Press, Cambridge (1990). 434 pp. Â£65.00. ISBN 0 521 331331. Antarctic Science, 1991, 3, 342-343.	0.9	0
110	Aspects of surface wave propagation with and without sea ice on the south-eastern shelf of Sakhalin Island. Estuarine, Coastal and Shelf Science, 2021, 251, 107227.	2.1	0
111	How sea ice can affect coastal swells, infragravity waves and leaky wave modes: Spectral adaptation from modulation. Wave Motion, 2021, 105, 102764.	2.0	0